IN THE SPECIFICATION:

Please amend the following paragraphs as indicated:

[0028] The tachometer output signal is input into the control function (120a), as shown in Fig. 2. The control function (120a) may multiply the tachometer output signal by a constant to amplify it before it is sent to the other control functions (120b,c). According to another embodiment, the control function (120a) compares the tachometer output signal with a preset value and adjusts the tachometer output signal accordingly. For example, the preset value may be an ideal RPM value for the cooling element (101). If the tachometer output signal is lower than the ideal RPM value, then a control signal that is output from the control function (120a) is modified so as to indicate to the cooling element (101) to increase its RPM. Likewise, if the tachometer output signals [[is]] are higher than the ideal RPM value, then the control signal that is output from the control function (120a) is modified so ás to indicate to the cooling element (101) to decrease its RPM.

[0032] Another exemplary control signal is a linear voltage control signal. A linear voltage control signal varies the direct current (dc) voltage applied to the cooling element (101) to vary the cooling element's speed (e.g.[[;]], RPM). Varying the dc voltage to [[a]] some cooling elements, such as fans, changes their RPM ~~somewhat~~ proportionally.

[0040] Because the control system monitors the power that is consumed by the IC (100) with the control function (120c), the control system may preemptively increase the RPM of the cooling element (101) and dissipate the heat as it is produced instead of waiting for the temperature to increase before cooling the IC (100). In other words, monitoring the IC's (100) power consumption enables the control system to predict the amount of heat that will be generated by the IC (100) and accordingly adjust the cooling element (101) to compensate for the increased heat.

[0057] Another exemplary embodiment entails using the control system to perform predictive failure analysis. The control system may collect and store in memory data related to the cooling element. This data may be variation in operation speed, amount of power consumed by the cooling element, etc. The control system may then analyze this data and recognize trends that may indicate that the cooling element has a certain percentage of failing after a certain amount of time. The control system may be programmed to recognize these trends and react to them in a number of ways. For example, in one embodiment, the control system ~~report to an~~ reports to a higher entity the existence of these conditions that may predate a failure. Exemplary higher entities may be, but are not limited to, system level thermal management processors and service personnel. An alternate embodiment is that the control system may disable a cooling element that it has determined to have a high chance of failure and enable a backup cooling element in its place.